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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

THAI, XUAN MARIAN

ART UNIT	PAPER NUMBER
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2181

DATE MAILED: 09/25/2002

8

Please find below and/or attached an Office communication concerning this application or proceeding.

4/20

Office Action Summary

Application No.

09/285,879

Applicant(s)

TOGAWA, YOSHIFUSA

Examiner

XUAN M. THAI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspond nc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This is in response to Amendment filed on April 3, 2002. Claims 1, 4 and 6-18 were amended. Claims 19-36 are newly added. Claims 1-36 are now pending in the instant application.
2. The objection to the title is withdrawn in response to the amendment.
3. Outstanding rejections under 35 USC 112 applied to claims 1-5 and 18 in the previous Office Action are being withdrawn in response to the amendment. However, new rejections under 35 USC 112 are being applied herein below.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 1 and 4, the scope of the claim cannot be ascertained because it is unclear which “driving means are not included in the information processing apparatus” (emphasis added) since the specification disclosed that the “information processing apparatus *is made up of* (include) a CPU 101, a memory 102, a ROM 103, a hard disc drive 104, a hard disc drive controller 105, a floppy disc drive 106, a floppy disc drive controller 107, a CD-ROM drive 108, a sound board 109, a speaker 110, a sound board controller 111, a graphics board 112, a display

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device 113, a graphics board controller 114 and a bus 115.” [see Fig. 1 and Specification, page 7, lines 25-32].

As per claims 2, 3 and 5, it is unclear whether “said control unit” refers to the plurality of control units which control a power source which supplies power to the plurality of driving means or “said control unit” refers to a separate control unit that controls a power source which supplies power to the plurality of driving means. Therefore the claims are indefinite. Appropriate correction is required.

Claims 2-3 and 5 are also rejected under the same rationale applied to claims 1 and 4.

As per claims 6, 9, 11, 14 and 17, it is unclear what is the scope of the “external driving means” (emphasis). ‘External’ with respect to what? The disclosure in the Specification does not support the current claimed language. See for example, the rationale stated in the rejection applied to claims 1 and 4 supra.

Claims 7, 8, 10, 12, 13, 15, 16, and 18 are also rejected under the same rationale applied to claims 6, 9, 11, 14 and 17.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who

has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 6-18, as understood, remain rejected under 35 U.S.C. 102(e) as being anticipated by Bartley (USPN 6,219,796) and the rejection is being reiterated herein for applicant's reference.

As per claim 6, Bartley discloses the claimed invention including power control method to control power supplied to a plurality of driving units (functional units) according to data to be processed (e.g. instruction type; col. 5, lines 2-4); detecting a type of the data to be processed is disclosed by Bartley, for example Bartley discloses the ability of processor to perform 'mapping' of instruction types to functional units (col. 5, lines 13-32); and controlling (e.g. control registers 11f or control logic unit 11g or power down logic 18; col. 3, lines 62 bridging col.4, lines 1-5) the plurality of driving units (functional units) according to said type of data to be processed (see col. 5, lines 9-58);

As per claim 7, controlling a power source which supplies power to the plurality of driving units (functional units) would be within the teachings of Bartley since Bartley discloses that sleep instruction or power up instruction are directed to the control of the supplying of

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power to the functional units [see col. 5, lines 60 bridging col. 7, lines 1-61; particularly col. 7, lines 56-58];

As per claim 8, Bartley discloses controlling the supply of power (power-up instruction) to each of the plurality of driving units that can process the data to be processed, and stopping a supply of power (sleep instruction) to each of the functional units that cannot process (un-used functional units) the data to be processed [see col. 5, lines 9-59];

As per claim 9, Bartley discloses the claimed invention including a power control method to control power supplied to a plurality of driving units to be supplied with data to be processed, comprising: controlling (e.g. control registers 11f or control logic unit 11g or power down logic 18) [see col. 3, lines 62 bridging col.4, lines 1-5] which controls the plurality of driving units (e.g. functional units or peripheral units) according to control data added to said data to be processed (e.g. sleep instruction or power up instruction) [see col. 5, lines 60 bridging col. 7, lines 1-61; particularly col. 7, lines 56-58].

As per claim 10, controlling a power source which supplies power to the plurality of driving units (functional units) would be within the teachings of Bartley since Bartley discloses that sleep instruction or power up instruction are directed to the control of the power supply to the functional units [see col. 5, lines 60 bridging col. 7, lines 1-61; particularly col. 7, lines 56-58];

As per claims 11-13, the claims have the same scope of that of claims 6-8 except they are directed to the computer readable medium with a program for performing the addressed functions; therefore they are rejected with the same rationale as applied to claims 6-8 supra further Bartley also discloses a computer program memory 12.

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As per claims 14 and 15, the claims have the same scope of that of claims 9 and 10 except they are directed to the computer readable medium with a program for performing the addressed functions; therefore they are rejected with the same rationale as applied to claims 9 and 10 supra further Bartley also discloses a computer program memory 12.

As per claim 16, Bartley discloses controlling the supply of power (power-up instruction) to each of the plurality of driving units that can process the data to be processed, and stopping a supply of power (sleep instruction) to each of the functional units that cannot process (un-used functional units) the data to be processed [see col. 5, lines 9-59]; Bartley further discloses a readable recording medium (program memory 12).

As per claims 17 and 18, Bartley discloses the claimed invention including a computer readable recording medium (program memory 12) comprising: data comprising: driving data to be supplied to driving means (data to be processed by the functional units or active instructions) [see cols. 3-5]; and control data (power down or up instructions) used to control other driving means (functional units that are not needed to execute a program segment) [see cols. 5-7]; wherein control data is recorded just before said driving data (e.g. power down instructions are inserted at the beginning of the segment) [see col. 6, lines 5-7 and col. 7, lines 27-28].

8. Claims 22-36, as understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Bartley (USPN 6,219,796).

As per claim 22, Bartley discloses the claimed invention including an information processing apparatus which drives a plurality of driving units (functional units) according to data to be processed [e.g. instruction type; col. 5, lines 2-4] and a control unit (e.g. control registers

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11f or control logic unit 11g or power down logic 18) [see col. 3, lines 62 bridging col.4, lines 1-5] which controls the corresponding driving unit (e.g. one of the functional units) according to said type of data to be processed (see col. 5, lines 9-58) or according to control data added to said data to be processed (e.g. sleep instruction or power up instruction) [see col. 5, lines 60 bridging col. 7, lines 1-61; particularly col. 7, lines 56-58].

As per claim 23, Bartley discloses wherein the control unit controls a power source which supplies power to the plurality of driving means (functional units) would be within the teachings of Bartley since Bartley discloses that sleep instruction or power up instruction are directed to the functional units [see col. 5, lines 60 bridging col. 7, lines 1-61; particularly col. 7, lines 56-58];

As per claim 24, Bartley discloses the claimed invention including power control method to control power supplied to a plurality of driving units (functional units) according to data to be processed (e.g. instruction type; col. 5, lines 2-4); detecting a type of the data to be processed is disclosed by Bartley, for example Bartley discloses the ability of processor to perform 'mapping' of instruction types to functional units (col. 5, lines 13-32); and controlling (e.g. control registers 11f or control logic unit 11g or power down logic 18; col. 3, lines 62 bridging col.4, lines 1-5) the plurality of driving units (functional units) according to said type of data to be processed (see col. 5, lines 9-58);

As per claim 25, controlling a power source which supplies power to the plurality of driving units (functional units) would be within the teachings of Bartley since Bartley discloses that sleep instruction or power up instruction are directed to the control of the supplying of

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power to the functional units [see col. 5, lines 60 bridging col. 7, lines 1-61; particularly col. 7, lines 56-58];

As per claim 26, Bartley discloses controlling the supply of power (power-up instruction) to each of the plurality of driving units that can process the data to be processed, and stopping a supply of power (sleep instruction) to each of the functional units that cannot process (un-used functional units) the data to be processed [see col. 5, lines 9-59];

As per claim 27, Bartley discloses the claimed invention including a power control method to control power supplied to a plurality of driving units to be supplied with data to be processed, comprising: controlling (e.g. control registers 11f or control logic unit 11g or power down logic 18) [see col. 3, lines 62 bridging col.4, lines 1-5] which controls the plurality of driving units (e.g. functional units or peripheral units) according to control data added to said data to be processed (e.g. sleep instruction or power up instruction) [see col. 5, lines 60 bridging col. 7, lines 1-61; particularly col. 7, lines 56-58].

As per claim 28, controlling a power source which supplies power to the plurality of driving units (functional units) would be within the teachings of Bartley since Bartley discloses that sleep instruction or power up instruction are directed to the control of the power supply to the functional units [see col. 5, lines 60 bridging col. 7, lines 1-61; particularly col. 7, lines 56-58];

As per claims 29-31, the claims 29-31 are similar in scope as compare with claims 24-26 except for being drafted in a computer readable medium format. Therefore, claims 29-31 are being rejected under the same rationale as applied to claims 24-26 supra.

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As per claims 32 and 33, the claims 32 and 33 are similar in scope as compare with claims 27 and 28 except for being drafted in a computer readable medium format. Therefore, claim 32 is rejected under the same rationale as applied to claims 27 and 28 supra.

As per claim 34, Bartley discloses a computer readable medium including controlling the supply of power (power-up instruction) to each of the plurality of driving units that can process the data to be processed, and stopping a supply of power (sleep instruction) to each of the functional units that cannot process (un-used functional units) the data to be processed [see col. 5, lines 9-59];

As per claim 35, Bartley discloses a computer readable medium from which a program can be read (fetching instructions) by a computer to drive a plurality of driving units (functional units) according to data to be processed (instructions), comprising: supplying driving data (instruction for execution by the functional units) to driving units (functional units); controlling (power-up or sleep instructions) other driving units (functional units that are not needed to execute a program segment) using control data (power-up instructions or sleep instructions) [see col. 5, lines 9-59; see also col. 7, lines 10-60];

As per claim 36, Bartley discloses that the control data (power down instruction) is recorded just before the driving data (power down instruction is inserted at the beginning of the segment) [see col. 6, lines 5-7 and col. 7, lines 27-28].

9. Claims 1-3 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Swanberg (USPN 5,832,280).

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As per claims 1 and 19, Swanberg discloses the claimed invention including an information processing apparatus to drive a plurality of driving units according to data to be processed, comprising: a detection unit to detect a type of data to be processed is disclosed in the system of Swanberg in that Swanberg states that the “CPU 50 fetches, decodes (detects), and executes instructions” [see col. 4, lines 1-2]; a plurality of control units (e.g. disk controller 66, CD-ROM controller 76 and display controller 98), each of which to control a corresponding driving unit according to the type of data to be processed e.g. Swanberg states that the display controller 98 includes “electronic components required to generate video signal that is sent to display 96.” [see col. 5, lines 59-60].

As per claim 2, Swanberg discloses a power control unit (e.g. power management controller 136) that controls a power source which supplies power to the plurality of driving unit [e.g. col. 6, lines 65 et seq. bridging col. 7, lines 1-15].

As per claim 3, Swanberg discloses wherein the control unit supplies power to each of the plurality of driving units that can process the data to be processed, and stopping a supply of power to each of the functional units that cannot process (functional units not currently being used) the data to be processed [see e.g. col. 6, lines 65 et seq. bridging col. 7, lines 1-15 and col. 8, lines 55 et seq. bridging col. 9, lines 1-20].

10. Claims 1-3 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Holzhammer et al. (USPN 5,754,869; hereinafter Holzhammer).

As per claims 1 and 19, Holzhammer discloses the claimed invention including an information processing apparatus to drive a plurality of driving units according to data to be

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processed, comprising: a detection unit to detect a type of data to be processed is inherent in the system of Holzhammer since Holzhammer discloses that his system comprises a CPU and that it is well known in the computer art that the CPU fetches, decodes (detects), and executes instructions therefore the detection unit to detect a type of data to be processed is inherent in the system of Holzhammer; a plurality of control units (e.g. device drivers 15), each of which to control a corresponding driving unit according to the type of data to be processed e.g. see col. 3, lines 59-65).

As per claim 2, Holzhammer discloses a power control unit (e.g. power management controller 21 and device drivers 15) that controls a power source which supplies power to the plurality of driving unit [e.g. col. 3, lines 59-65].

As per claim 3, Holzhammer discloses wherein the control unit supplies power to each of the plurality of driving units that can process the data to be processed, and stopping a supply of power to each of the functional units that cannot process (devices not currently being used) the data to be processed [see e.g. col. 3, lines 59-65].

11. Claims 1-5 and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith et al. (USPN 5,167,024; hereinafter Smith).

As per claims 1 and 19, Smith discloses the claimed invention including an information processing apparatus to drive a plurality of driving units according to data to be processed, comprising: a detection unit to detect a type of data to be processed is inherent in the system of Smith since Smith discloses that his system comprises a CPU and that it is well known in the computer art that the CPU fetches, decodes (detects), and executes instructions therefore the

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detection unit to detect a type of data to be processed is inherent in the system of Smith; a plurality of control units (e.g. device or software drivers ; see col. 9, lines 50-68), each of which to control a corresponding driving unit according to the type of data to be processed e.g. see col. 9, lines 50-68).

As per claim 2, Smith discloses a power control unit (e.g. drivers and power management controller 11) that controls a power source which supplies power to the plurality of driving unit [e.g. col. 9, lines 50-68].

As per claim 3, Smith discloses wherein the control unit supplies power to each of the plurality of driving units that can process the data to be processed, and stopping a supply of power to each of the functional units that cannot process (unneeded devices) the data to be processed [see e.g. col. 9, lines 50-68].

As per claim 4, Smith discloses an information processing apparatus to drive a plurality of driving means (peripheral devices and drivers) according to data to be processed (particular data type), the information processing apparatus comprising: a plurality of control units (drivers) each of which to control a corresponding driving means (e.g. peripheral devices) according to control data added to the data to be processed (e.g. commands provided by the CPU in response to a stored routine) [see col. 9, lines 40-68];

As per claim 5, Smith discloses an information processing apparatus including the control unit (power management controller 11 and drivers) controls a power source which supplies power to said plurality of driving means (peripheral devices) [see col. 9, lines 40-68];

As per claim 20, Smith discloses wherein each of the plurality of control units (drivers) controls a power source which supplies power to its corresponding driving unit e.g. Smith states

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that drivers of the computer 10 are responsible to powering on and off their respective peripheral devices [see col. 9, lines 50-52];

As per claim 21, Smith discloses wherein each of the plurality of control units supplies power to each of the plurality of driving units that can process the data to be processed, and stopping a supply of power to each of the driving units that cannot process (needed devices) the data to be processed [see e.g. col. 9, lines 50-68].

Response to Arguments

12. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection. With respect to claims 6-18 and new claims 22-36, Bartley discloses expressly or implicitly all the elements of the claims to the extent that they are being claimed as detailed in the rejections supra. Also, Bartley discloses that his invention applies to the selective power-modification of any "functional units" *regardless of whether it is internal or external to the central processing unit* [e.g. col. 6, lines 40-59]. Therefore, Bartley teaches the invention to the extent that it is being claimed by the applicant.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached list of references cited on Form PTO-892.

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14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xuan M. Thai whose telephone number is (703) 308-2064.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Peter Wong can be reached on (703) 305-3477.

The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703) 746-7238	[After Final Communication]
(703) 746-7239	[Official Communication]
(703) 746-7240	[For Status inquiries and draft communication]

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.



XUAN M. THAI
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100

XMT
September 17, 2002

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